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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Brian Dolling

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KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

PIERY, MICHAEL T

ART UNIT

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1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,842	Applicant(s) DOLLING, BRIAN	
	Examiner MICHAEL T. PIERY	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15 is/are rejected.
- 7) ☒ Claim(s) 14-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/28/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 14-17 have been renumbered 13-16, respectively.

Election/Restrictions

2. Applicant's election without traverse of claims 1-14 and 16 in the reply filed on April 27, 2009 is acknowledged.

Claims 14 and 16 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on April 27, 2009.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matheson (US 2004/0178168) in view of Ernstsson et al. (US 4,039,362).

Regarding claim 1, Matheson teaches a method of making a closure of expanded plastic material (paragraph 0031) and treating the closure to effect a tapered end (paragraph 0012).

Matheson does not explicitly teach heat shrinking to form the taper. However, Ernstsson teaches it is known to use heat to shrink the end of an expanded plastic material to form a taper (column 3, lines 45-50). It would have been obvious to one of ordinary skill in the art at the time of the

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invention to modify the process of Matheson to substitute heat shrinking the closure to form the taper for pressing the closure to form the taper since it has been held that substitution of known equivalent tapering methods is within routine skill of one in the art (MPEP 2141).

Regarding claims 2, 3 and 14, Matheson does not explicitly teach the heating member is adapted to contact the ends of the closure. However, Ernstsson teaches it is known to use heat provided by opposed heating elements (arms, 18) to shrink the end of an expanded plastic material to form a taper (column 3, lines 45-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Matheson to contact the closure since it is known to heat shrink expanded plastic material and conductive heating is a well-known, efficient heating means.

Regarding claim 4, Matheson teaches both ends of the closure are tapered (figure 4). Matheson does not explicitly teach heat shrinking to form the taper. However, Ernstsson teaches it is known to use heat to shrink the end of an expanded plastic material to form a taper (column 3, lines 45-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Matheson to substitute heat shrinking the closure to form the taper for pressing the closure to form the taper since it has been held that substitution of known equivalent tapering methods is within routine skill of one in the art (MPEP 2141).

Regarding claim 5, Matheson does not explicitly teach heating elements in an elongated form. However, Ernstsson teaches elongated heating elements (figure 1, #18). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Matheson to substitute heat shrinking the closure to form the taper for pressing the closure to

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form the taper since it has been held that substitution of known equivalent tapering methods is within routine skill of one in the art (MPEP 2141).

Regarding claim 6, Matheson does not explicitly teach the heating member is adapted to contact the ends of the closure. However, Ernstsson teaches it is known to use heat to shrink the end of an expanded plastic material to form a taper (column 3, lines 45-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Matheson to contact the closure since it is known to heat shrink expanded plastic material and conductive heating is a well-known, efficient heating means.

6. Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matheson (US 2004/0178168) in view of Ernstsson et al. (US 4,039,362), as applied to claims 1-6 above, and further in view of Shiguma et al. (US 3,820,373).

The modified Matheson reference teaches the method of claims 1-6, as applied above.

Regarding claim 7, Matheson does not explicitly teach the heating element is adapted to rollably contact the closure. However, Shiguma teaches it is known to heat taper materials using rolling elements (column 2, lines 22-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Matheson use rolling contact to heat shrink the closures because roll tapering provides high quality and high reliability during a tapering process (column 1, lines 25-30).

Regarding claim 8, Matheson does not explicitly teach the heating member is adapted to contact the ends of the closure. However, Ernstsson teaches it is known to use heat to shrink the end of an expanded plastic material to form a taper (column 3, lines 45-50). It would have been

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obvious to one of ordinary skill in the art at the time of the invention to modify the process of Matheson to contact the closure since it is known to heat shrink expanded plastic material and conductive heating is a well-known, efficient heating means. Shiguma teaches it is known to heat taper the ends (figure 2B, #11) of materials using rolling elements (column 2, lines 22-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Matheson use rolling contact to heat shrink the closures because roll tapering provides high quality and high reliability during a tapering process (column 1, lines 25-30).

Regarding claim 9, Matheson does not explicitly teach a space adjustment means. However, Shiguma teaches a spacing adjustment means (column 2, lines 30-32). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Matheson to include the spacing adjustment means of Shiguma because the adjustment means allows for accommodation of different sizes of materials.

Regarding claims 10 and 12, Matheson does not explicitly teach an adjustment means including supporting blocks in a stair case. Shiguma teaches a spacing adjustment means including a screw down mechanism (column 3, lines 5-9). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the process of Matheson to use blocks as the to adjust the space since it has been held that substitution of known equivalent space adjustment means is within routine skill of one in the art (MPEP 2141).

Regarding claim 11, Matheson does not explicitly teach adjusting the inclination to affect the degree of tapering. However, Shiguma teaches it is known to adjust the inclination to affect the degree of taper (column 3, lines 5-20). It would have been obvious to one of ordinary skill in

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the art at the time of the invention to modify the process of to adjust the inclination to affect the degree of tapering because the adjustable tapering means ensures the material is tapered to the desired shape (column 3, lines 35).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. PIERY whose telephone number is (571)270-5047. The examiner can normally be reached on M-Th 8:30-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael T Piery/
Examiner, Art Unit 1791

/Monica A Huson/
Primary Examiner, Art Unit 1791